Claims

1. A method for establishing a connection from a packet-switched network to a user terminal via a circuit-switched network, said method comprising the steps of:

a) delivering a temporary routing number to said user terminal; and

b) establishing a circuit-switched call leg from said user terminal to said packet-switched network using said routing number.

2. A method according to claim 1, wherein said delivering step comprises delivering routing number comprising an E.164 number.

3. A method according to claim 1, wherein said delivering step comprises performing using at least one session initiation protocol session setup message.

4. A method according to claim 3, wherein said performing step comprises keeping said session initiation protocol session active during the circuit-switched call.

5. A method according to claim 1, further comprising an additional step of detecting whether said circuit-switched call leg is supported by said user terminal and said packet-switched network before said delivering step.

6. A method according to claim 5, wherein said detecting step comprises performing within a registration procedure.

7. A method according to claim 1, wherein said establishing step comprises establishing said circuit-switched call leg comprising a call leg from an originating call.

8. A method according to any one of claim 1, wherein said establishing step comprises establishing said circuit-switched call leg is a call leg from a terminating call.

9. A method according to claim 1, wherein said delivering step comprises delivering said routing number to said user terminal from a call control element of said packet-switched network.

10. A method according to claim 1, wherein said establishing step comprises locating said user terminal outside its home network.

11. A method according to claim 1, further comprising the step of converting said circuit-switched call leg into a voice-over internet protocol connection in a core network of said packet-switched network.

12. A method according to claim 1, wherein said establishing step comprises performing using integrated services digital network user part.

13. A method according to claim 1, further comprising providing a packet-switched conference call service to said circuit-switched network using said connection, and wherein said method comprises the steps of:

transmitting, via a data path, a conference request directed to an application server which provides said conference call service;

receiving, via said data path, said temporary routing number as a conference routing number for a requested conference call in response to said conference request; and

using said received conference routing number to set up said circuit-switched call leg as a call leg of said conference call.

14. A method according to claim 13, further comprising the step of selecting participants of said conference call and

adding to said conference request an information specifying said selected participants.

15. A method according to claim 13, wherein said transmitting step comprises performing based on a pre-configured address information.

16. A method according to claim 15, further comprising the step of setting said pre-configured address information in a service subscription stage.

17. A method according to claim 1, further comprising the step of adding session-related information to said conference request, said session-related information comprising at least one of a subject:

picture of the subject,

payer of the conference,

importance of the conference session,

animation,

video clip,

sound clip, and

textual description.

18. A method according to claim 13, wherein said transmitting step comprises transmitting via said data path that comprises a short message service channel.

19. A method according to claim 13, wherein said transmitting step comprises transmitting via said data path that comprises a unstructured supplementary service data, wireless application protocol, or hyper text transfer protocol channel.

20. A method according to claim 13, wherein said transmitting and receiving steps comprise performing using session initiation protocol.

21. A method according to claim 20, wherein said transmitting and receiving steps comprise performing using at least one session initiation protocol or service description protocol extension for communicating circuit-switched specific information.

22. A method according to claim 13, wherein said providing step comprises setting up said circuit-switched connection to a media gateway control device which then routes the circuit-switched call to said application server.

23. A method according to claim 22, further comprising the step of converting said routing number into a packet-switched conference address at said media gateway control device.

24. A method according to claim 13, further comprising the steps of:

reserving said routing number as a temporary conference routing number at said application server during establishment of said conference call; and

releasing said routing number for reuse after releasing said conference call.

25. A method according to claim 13, further comprising the step of forwarding a join request to join said conference call from said application server to other participants specified in said conference request via a data path.

26. A method according to claim 25, wherein the forwarding step comprises transmitting said request using a session initiation protocol Invite message triggered by a received session initiation protocol refer message.

27, A method according to claim 25, wherein said forwarding step comprises forwarding said join request that comprises:

at least one of an identification of the conference initiator;

a subject of said conference call;

a price of the conference call leg; and

an information about a moderation of said conference call, an animation, a video clip, a sound clip, and a textual description.

28. A method according to claim 13, further comprising a step of:

forwarding, via another data path, said conference routing number from said application server to a requested participant specified in said conference request to indicate that said conference call will be established from said conference number to said requested participant,

wherein at least one circuit-switched connection is set up from said application server using said conference number as a calling party number via a media gateway control device, which then routes the conference call to said requested participant.

29. A method according to claim 13, further comprising the step of forwarding a kick-out request to said application server via said data path to thereby have a participant excluded from said conference call.

30. A method according to claim 29, wherein said forwarding step comprises forwarding said kick-out request that comprises an identification of said conference call and an identification of at least one said participant to be excluded.

31. A method according to claim 13, wherein said receiving step comprises receiving said temprorary routing number for said conference call, said conference call supports at least one of:

an audio component,

a non-real time video component;

an application component; and

a messaging component.

32. A method according to claim 13, wherein said connection set-up is performed by using a conference policy control protocol over an Mt interface as a data path.

33. A method according to claim 13, further comprising the steps of:

forwarding, via another data path, a join request to join said conference call from a requesting participant to at least one requested participant specified in said conference request,

wherein said join request comprises said conference routing number and a connection setup step comprising setting up a circuit switched connection from the at least one requested participant to application server using said conference routing number.

34. A method according to claim 33, wherein the forwarding step comprises forwarding the request using session initiation protocol Refer message and the connection setup step comprises establishing said at least one circuit switched connection using session initiation protocol Invite message.

35. A terminal device for providing a connection to a packet-switched network via a circuit-switched network, said terminal device comprising: a) communicating means for receiving a temporary routing number delivered to a user terminal; and b) establishing means for establishing a circuit-switched call leg from said user terminal to said packet-switched network using said temporary routing number.

36. A terminal device according to claim 35, wherein said connection is used to provide a packet-switched conference call service in said circuit-switched network, said communication means is configured to transmit via a data path a conference request directed to an application server which provides said conference call service, and to extract said temporary routing number as a conference routing number from a response received via said data path; and

wherein said establishing means is configured to establish said circuit-switched call leg using said extracted conference routing number.

37. A terminal device according to claim 36, wherein said communication means is configured to use a short message service channel for forwarding said conference request.

38. A terminal device according to claim 36, wherein said communication means is configured to use a session initiation protocol message for forwarding said conference request.

39. A terminal device according to claim 38, wherein said communication means is configured to use at least one session initiation protocol or service description protocol extension for communicating circuit-switched specific information.

40. A terminal device according to any one of claims 36 to 39, wherein said communication means and said establishing means are integrated in a telephony application of said terminal device.

41. A terminal device according to claim 36, wherein said conference call application is implemented as a native client application or as a midlet application.

42. A terminal device according to claim 36, wherein said communication means are configured to transmit said conference request in consequence of receiving a first request from another user.

43. A server device for providing a connection from a packet-switched network to a circuit-switched network, said server device comprising:

communicating means for receiving from said circuit-switched network, a connection request via a data path; and

means for delivering a temporary routing number for said circuit-switched network via said data path.

44. A server device according to claim 43, wherein said connection is used to provide a packet-switched conference call service to said circuit-switched network, said connection request is a conference request, and said temporary routing number is a conference routing number.

45. A server device according to claim 44, further comprising allocating means for allocating said conference routing number as a temporary E.164 number to said conference call.

46. A server device according to claim 45, wherein said allocating means is configured to reserve a plurality of E.164 numbers for a plurality of conference calls.

47. A server device according to claim 46, wherein said reserved plurality of E.164 numbers comprises a plurality of toll-free numbers and a plurality of charged numbers.

48. A server device according to claim 47, wherein said allocating means is configured to select said E.164 number from said plurality of charged numbers included in said conference request.

49. A server device according to claim 43, wherein said communication means is configured to send a conference routing number via a respective data path to other participants specified in a conference request.

50. A server device according to claim 49, further comprising:

checking means for checking whether callers of received calls relating to said conference call match with said other participants specified in said conference request.

51. A server device according to claim 43, further comprising connection control means for connecting individual call legs of participants in a media gateway device.

52. A server device according to claim 43, further comprising:

interface means for providing a direct connection to a media gateway control device to enable routing of a set-up call for a conference call from said circuit-switched network to an application server.

53. A server device according to any one of claims 43, further comprising means for implementing media gateway controller functions in the said server device.

54. A computer program product comprising code means configured to produce steps for establishing a connection from a user terminal to a packet-switched network via a circuit-switched network when loaded into a memory of a terminal device.